

US009510822B2

(12) United States Patent

Poucher et al.

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 0 days.

(21) Appl. No.: 14/706,981

(22) Filed: May 8, 2015

(65) Prior Publication Data

US 2016/0157845 A1 Jun. 9, 2016

Related U.S. Application Data

(60) Provisional application No. 62/087,252, filed on Dec. 4, 2014.

(Continued)

(51)	Int. Cl.	
	A61F 2/02	(2006.01)
	A61B 17/04	(2006.01)
	A61F 2/00	(2006.01)
	A61B 17/00	(2006.01)
	A61B 17/06	(2006.01)

(52) U.S. Cl.

CPC A61B 17/0401 (2013.01); A61B 17/00234 (2013.01); A61B 17/06166 (2013.01); A61B 17/3209 (2013.01); A61B 17/3468 (2013.01); A61F 2/0045 (2013.01); A61B 2017/00805 (2013.01); A61B 2017/0409 (2013.01); A61B 2017/0412 (2013.01); A61B 2017/0414 (2013.01); A61B 2017/0427 (2013.01); A61B 2017/0445 (2013.01); A61B 2017/0464 (2013.01); A61F 2002/0072 (2013.01); (Continued)

(10) Patent No.: US 9,510,822 B2

(45) **Date of Patent: Dec. 6, 2016**

(58) Field of Classification Search

(56) References Cited

U.S. PATENT DOCUMENTS

5,502,578 A 3/1996 Smitt 6,595,911 B2 7/2003 LoVuolo (Continued)

FOREIGN PATENT DOCUMENTS

EP 1484022 A2 12/2004 EP 2277456 A1 1/2011 (Continued)

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(57) ABSTRACT

A tissue anchor has a body, protrusions from the body, and a tissue engaging fin. The body is oriented on a longitudinal axis and has a leading tip, a leading end portion extending from the leading tip, a trailing end portion connected to the leading end portion, with the trailing end portion terminating in a trailing tip that is located opposite of the leading tip. A first anchor width measured between the protrusions is greater than a second anchor width measured at the trailing end portion of the body. The tissue engaging fin is integrated with the leading end portion of the body and oriented in a direction perpendicular to the radial direction of the first and second protrusions. The tissue engaging fin has a fin width and is provided with an eyelet formed through the fin width. A gripping tab is removably attached to the tissue engaging fin

19 Claims, 72 Drawing Sheets

